



TGGATCAGATAAAAGTTTGTAAGA

ATGACAAAGAAATGAGAAGAGTGGCAAGTACGAGGTGGTCGACAATAGGTGAAGGAACCTTTGCTAAGGTTAAG

1 M T K K M R R V G K Y E V G R T I G E G T F A K V K
-- I --

TTTGGGAGGACACAGACACTGGTGATAATGTAGCCATCAAAATTATGGCTAAGAGTACAATACTTAAGAACAGAATG

27 F A R N T D T G D N V A I K I M A K S T I L K N R M
-- II --

GTTGATCAGATAAAAGAGAGATATCTATAATGAAGATTGTCGCACCCGAACATAGTGAGTTGTATGAGGTGTG

53 V D Q I K R E I S I M K I V R H P N I V R L Y E V L
-- III -- -- IV --

GCGAGTCCTCGAAATATATAGTTTGGAGTTGTGACAGGAGAGCTCTTTGATAGAATTGTTTCATAAAGGG

79 A S P S K I Y I V L E F V T G G E L F D R I V H K G
-- V --

AGGCTTGAGAAAGTGAGTCTCGGAAATACTTTCAACAGCTGTAGATGCTGTTGCTCATTGTCACCTGCAAGGTGTT

105 R L E E S E S R K Y F Q Q L V D A V A H C H C K G V
-- VI --

TACCACGTGACCTAAAGCCAGAAATCTTTACTCGATACAAATCGAAGTTTCGGATTTCGGACTCAGT

131 Y H R D K P E N L L D T N G N L K V S D F G L S
-- VII --

GCATTGCCTCAGGAGGAGTAGAATTCTGCGTACCACATGTGGAACCTCGAAGTGTAGTCCAGAGGTACTTAGT

157 A L P Q E G V E L L R T T C G T P N Y V A P E V L S
-- VIII --

FIG. 2B(1)



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GGACAGGTTACGATGTTACGAGCTGATATTGGTCTTGCGGGTTATTCTTTTCGTTATATTGGCTGGATATTTA
183 G Q G Y D G S A A [D] I [W] [S] C [G] [V] I L F V I L A G Y L
--IX--

CCTTTTCCGAGACGGATCTTCCAGGGTTGTACAGAAAATAAATGCAGCAGAGTTTCTTGTCACCGTGGTTTCC
209 P F S E T D L P G L Y R K I N A A E F S C P P W F S
--X--

GCAGAAGTGAAGTTTTTAATACATAGGATACTTGACCCCAATCCCAAAACACGTATTCAAATTCAGGAATCAAGAAA
235 A E V K F L I H R [I] L D P N P K T R I Q [I] Q G I K K
--XI--

GATCCTTGTTCCAGATTAAATTATGTGCTATACGAGCAAGGGAAGAAGAAGTGAATTGGATGATATTCGTGCA
261 D P W F R L N Y V P I R A R E E E V N L D D I R A

GTTTTTGATGGAATTGAGGGCAGTTATGTAGCGGAGAATGTAGAGAGAAATGATGAAGGCCCTGATGATGAATGCC
287 V F D G I E G S Y V A E N V E R N D E G P L M N A

TTTGAGATGATTACCTTATCACAGGCTTAAATTATCTGCACTATTTGACAGGCGACAGGATTTTGTAAAGGCAA
313 F E M I T L S Q G L N L S A L F D R R Q D F V K R Q

ACCGTTTTGTTCTCGAAGGGAACCTAGTGAGATAATTGCTAACATTGAGGCTAGCGAACTCAATGGTTTAAAG
339 T R F V S R R E P S E I I A N I E A V A N S M G F K

FIG. 2B(2)



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TCTCATACGAACTTCAAGACAAGGCTCGAGGGATTATCTTCGATCAAGCGGACAGTTAGCTGTTGTGATAGAG
365 S H T R N F K T R L E G L S S I K A G Q L A V V I E
ATTACGAGGTGGCACCATCGCTTTTCATGGTAGACGTAAAGGCTGCTGGTGAACTCTTGAATATCACAAAGTTC
391 I Y E V A P S L F M V D V R K A A G E T L E Y H K F
TACAAGAAGCTATGTTCGAAACTGGAAACATAATATGGAGGGCAACAGAGGAATACCAAGTCAGAGATTCTCAGA
417 Y K K L C S K L E N I I W R A T E G I P K S E I L R
ACAATCACGTTTTGATCCCAACTTAA
437 T I T F

FIG. 2B(3)



*
SOS2 1 MTKKMRVGVKYE VGR TIGEGTFAKV FARN DDTGDNVAIK IMAKST I LKNRMVDQ
AMPK 1 MAEKQKHDGRVKIGHYV LGDTLGMGTFGVKVIGEHQLTGHKVAVKILNRQK I RSL DVVGK
SNF1 45 SLADGAHIGNYQ IIVKTLGEGSGKVKLANYHTTIGQKVALKIINKKVLAKSDMQGR

SOS2 56 IKREISIMKIVRHPNI VRLYEVLASPSKIYIVLEFVTGGELFDR I VHKGRLEESESRKYF
AMPK 61 IKREIQNLKLF RHPHI IKLYQVISTPTDF FMMEYVSGGELFDY ICKHGRVEEMEARRLF
SNF1 101 IEREISYLRLLRHPHI IKLYDVJ KSKDEJIMVIEYA-QNELFDYIVQRDKMSEQEARFFF

SOS2 116 QQLVDVAHCHCKGVYHRDLKPENLLD TNGNLKVSDFGLSAQ PQEGVEL RTICGTPNY
AMPK 121 QQILSAVDYCHRH MVHRDLKPENVLL DAHMNAK IADFGLSNMMSDG-EFLRTSCGSPNY
SNF1 161 QQIISAVEYCHRHKI VHRDLKPENLL DEHLNVK IADFGLSNIMTDG-NFLKTSCGSPNY

*
SOS2 176 VAPEVLSGQGYDGSADIWSCGVILFVILAGYL PFESETDLPGLYRK I NAAEFSCPPWFSA
AMPK 180 TAPEVISGRLYAGPEVDI WSCGVILYALLCGTL PFDDEHVPTLFKKIRGGVFYIPEYLN
SNF1 221 AAPEVISGKLYAGPEVDVWSCGVILYVMLQRRLPFDDESIPVLFKNISNGVYTLPKFLSP

SOS2 236 EVKFLIHRILDPNPK TRIQQIGIKKDPWFRIN
AMPK 240 SVAJTLIMHMLQVDP LKRA TIKDIREHEWFKQGG
SNF1 282 GAAGLIKRM L IIVNP LNRISIH EIMQDDWFKVD

FIG. 3A



SOS2 332 QDFVQRQTRFMSRREPSEIIANIEAVANSMGFKS---HTRNFKTRLEGSSIKAGQAVM
CHK1 389 ICPPERLTRFYSRASRETIIDHYNDSRLAISVTMKYVRNQTILMVNHDKRKCLQGM
CHK1 371 QRLVKRMTREFTKLDADKSYQCQKETCEKLGQW---KSCMNQVTISTIDRRNNKIFK

SOS2 389 IETIEVAPSFMVDVRKAAGETLEYHKFYKKLCSKLENIIWRATEGIP
CHK1 449 IELTNLGHNEELINFIRNNGDPLEWRKFFKNVSSIGKPIVLTDSQN
CHK1 428 MNLEMD-DKILVDFRLSKGDGLEFKRHELKIKGKI DIVSSQKMLP

FIG. 3B



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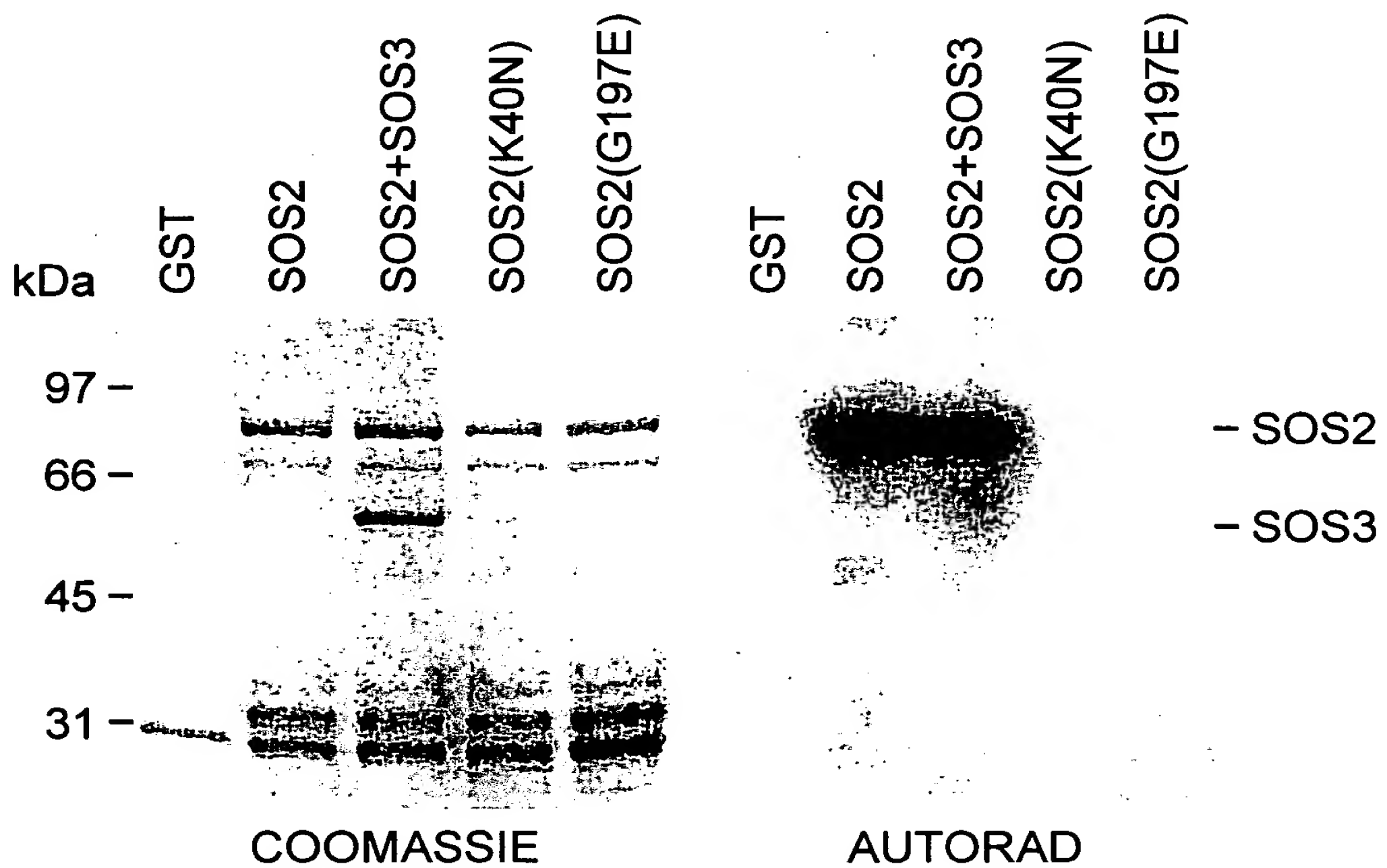


FIG.4

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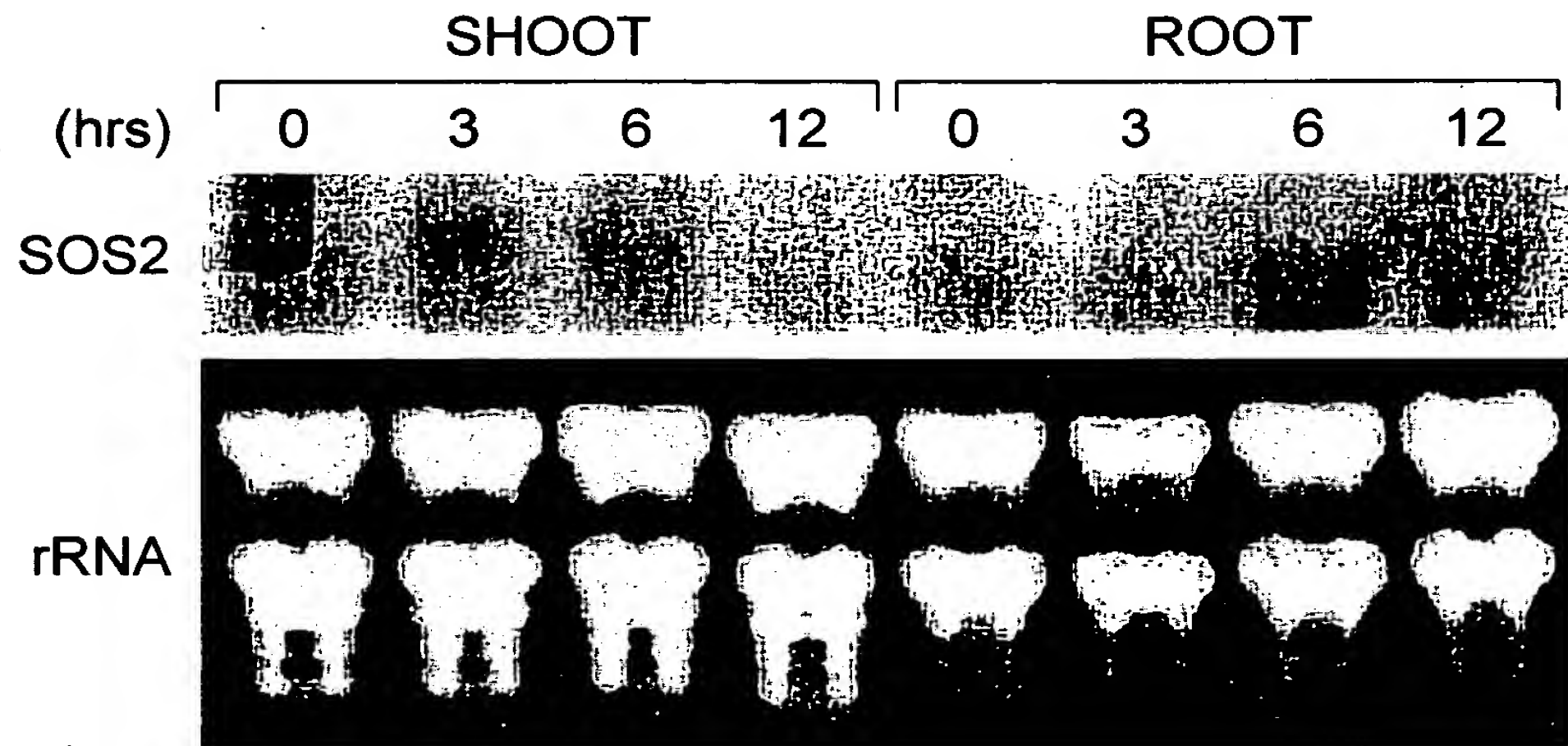


FIG.5A

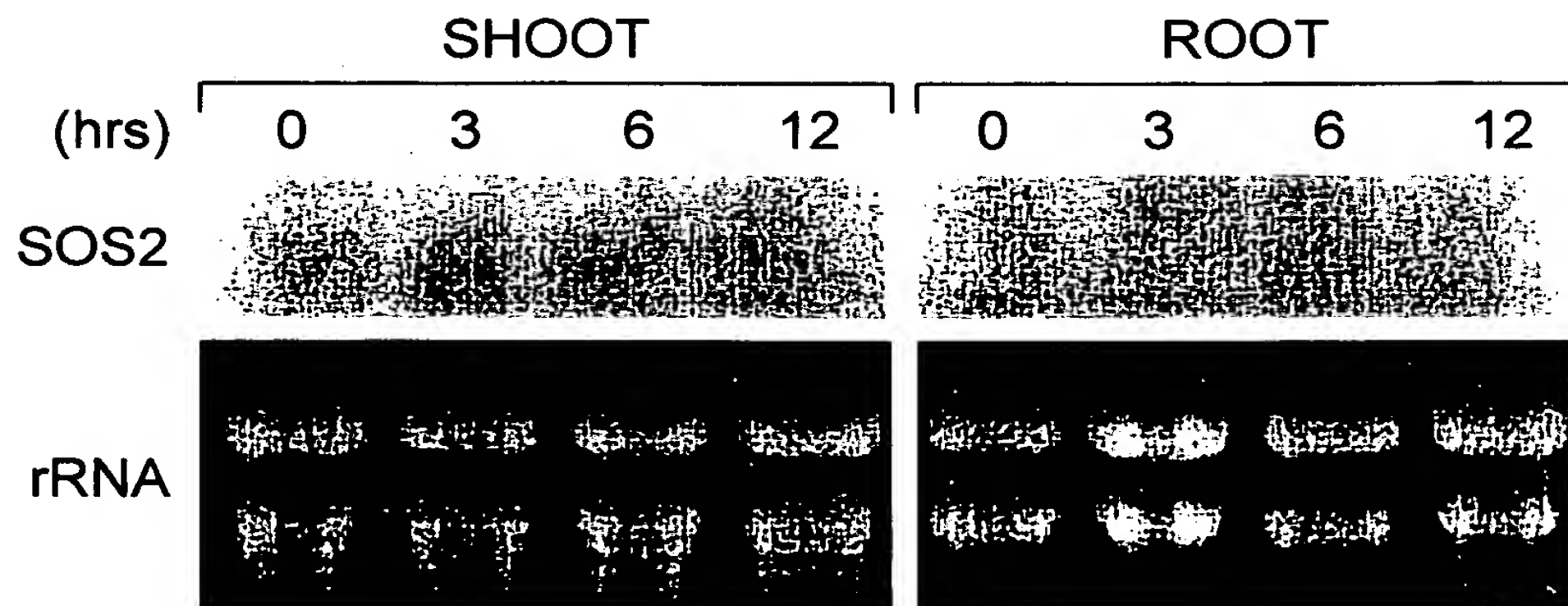


FIG.5B